IN THE CLAIMS:

Please cancel claims 1-39 without prejudice or disclaimer, and substitute new claims 40-78 therefor as follows:

Claims 1-39 (Cancelled).

40. (New) A solid oxide fuel cell comprising a cathode, an anode and at least one electrolyte membrane disposed between said anode and said cathode, wherein said anode comprises a cermet comprising a metallic portion and an electrolyte ceramic material portion, said portions being substantially uniformly interdispersed, said metallic portion having a melting point equal to or lower than 1200°C; said cermet having a metal content higher than 50 wt%, and a specific surface area equal to or lower than 5 m^2/g.

41. (New) The solid oxide fuel cell according to claim 40, wherein the metallic portion is selected from a single metal selected from copper, aluminum, gold, praseodymium, ytterbium, cerium, and alloys comprising one or more thereof.

42. (New) The solid oxide fuel cell according to claim 41, wherein the metallic portion is copper.

43. (New) The solid oxide fuel cell according to claim 40, wherein the metallic portion has a melting point higher than 500°C.

44. (New) The solid oxide fuel cell according to claim 40, wherein the metal content is 60 wt% to 90 wt%.

45. (New) The solid oxide fuel cell according to claim 40, wherein the cermet has a specific surface area equal to or lower than 2 m^2/g.

46. (New) The solid oxide fuel cell according to claim 40, wherein the cermet has a porosity equal to or higher than 40%.

47. (New) The solid oxide fuel cell according to claim 40, wherein the ceramic material has a specific conductivity equal to or higher than 0.01 S/cm at 650°C.

48. (New) The solid oxide fuel cell according to claim 47, wherein the ceramic material is selected from doped ceria and $La_{1-x}Sr_xGa_{1-y}Mg_yO_{3-\delta}$ wherein x and y are 0 to 0.7 and δ is from stoichiometry.

49. (New) The solid oxide fuel cell according to claim 48, wherein ceria is doped with gadolinia or samaria.

50. (New) The solid oxide fuel cell according to claim 40, wherein the ceramic material is yttria-stabilized zirconia.

51. (New) The solid oxide fuel cell according to claim 40, wherein the cathode comprises a metal selected from platinum, silver, gold and mixtures thereof, and an oxide of a rare earth element.

52. (New) The solid oxide fuel cell according to claim 40, wherein the cathode comprises a ceramic selected from

$La_{1-x}Sr_xMnO_{3-\delta}$, wherein x and y are independently equal to 0 to 1, and δ is from stoichiometry; and

$La_{1-x}Sr_xCo_{1-y}Fe_yO_{3-\delta}$, wherein x and y are independently equal to 0 to 1, and δ is from stoichiometry.

53. (New) The solid oxide fuel cell according to claim 52, wherein the cathode comprises doped ceria.

54. (New) The solid oxide fuel cell according to claim 40, wherein the cathode comprises a combination of materials comprising a metal selected from platinum, silver, gold and mixtures thereof, and an oxide of a rare earth element and a ceramic selected from

$La_{1-x}Sr_xMnO_{3-\delta}$, wherein x and y are independently equal to 0 to 1, and δ is from stoichiometry; and

$La_{1-x}Sr_xCo_{1-y}Fe_yO_{3-\delta}$, wherein x and y are independently equal to 0 to 1, and δ is from stoichiometry.

55. (New) The solid oxide fuel cell according to claim 40, wherein the electrolyte membrane is selected from yttria-stabilized zirconia, $La_{1-x}Sr_xGa_{1-y}Mg_yO_{3-\delta}$ wherein x and y are 0 to 0.7, and δ is from stoichiometry, and doped ceria.

56. (New) A method for producing energy comprising the steps of:

a) feeding at least one fuel into an anode side of a solid oxide fuel cell comprising

an anode comprising a cermet comprising a metallic portion and an electrolyte ceramic material portion, said portions being substantially uniformly interdispersed, said metallic portion having a melting point equal to or lower than 1200°C; said cermet having a metal content higher than 50 wt%, and a specific surface area equal to or lower than 5 m^2/g;

a cathode; and

at least one electrolyte membrane disposed between said anode and said cathode;

b) feeding an oxidant into a cathode side of said solid oxide fuel cell; and

c) oxidizing said at least one fuel in said solid oxide fuel cell, resulting in production of energy.

57. (New) The method according to claim 56, wherein the solid oxide fuel cell operates at a temperature of 400°C to 800°C.

58. (New) The method according to claim 57, wherein the solid oxide fuel cell operates at a temperature of 500°C to 700°C.

59. (New) The method according to claim 56, wherein the fuel is hydrogen.

60. (New) A process for preparing a solid oxide fuel cell comprising a cathode, an anode and at least one electrolyte membrane disposed between said anode and said cathode, wherein said anode comprises a cermet including a metallic portion and an electrolyte ceramic material portion; said process comprising the steps of:

providing a cathode;

providing the at least one electrolyte membrane; and

providing an anode

wherein the step of providing the anode comprises the steps of:

a) providing a precursor of the metallic portion, said precursor having a particle size of 0.2 μm to 5 μm;

b) providing the electrolyte ceramic material having a particle size of 1 μm to 10 μm;

c) mixing said precursor and said ceramic material to provide a starting mixture;

d) heating and grinding said starting mixture in the presence of at least one first dispersant;

e) adding at least one binder and at least one second dispersant to the starting mixture from step d) to give a slurry;

f) thermally treating said slurry to provide a pre-cermet; and

g) reducing the pre-cermet to provide the cermet.

61. (New) The process according to claim 60, wherein the slurry resulting from step e) is applied on the electrolyte membrane.

62. (New) The process according to claim 60, wherein the precursor of the metallic portion is an oxide.

63. (New) The process according to claim 62, wherein the oxide is a copper oxide.

64. (New) The process according to claim 62, wherein the oxide is CuO.

65. (New) The process according to claim 60, wherein the precursor has a particle size of 1 to 3 μm.

66. (New) The process according to claim 60, wherein the ceramic material has a particle size of 2 to 5 μm.

67. (New) The process according to claim 60, wherein step d) is carried out more than one time.

68. (New) The process according to claim 60, wherein the at least one first and second dispersants are selected from ethanol and isopropanol.

69. (New) The process according to claim 60, wherein the at least one first dispersant is the same as the at least one second dispersant.

70. (New) The process according to claim 60, wherein the binder is soluble in the at least one second dispersant.

71. (New) The process according to claim 60, wherein the binder is polyvinylbutyral.

72. (New) The process according to claim 60, wherein step f) is carried out at a temperature of 700°C to 1100°C.

73. (New) The process according to claim 72, wherein step f) is carried out at a temperature of 900°C to 1000°C.

74. (New) The process according to claim 60, wherein step g) is carried out at a temperature of 300°C to 800°C.

75. (New) The process according to claim 74, wherein step g) is carried out at a temperature of 400°C to 600°C.

76. (New) The process according to claim 60, wherein step g) is performed with hydrogen containing from 1 vol.% to 10 vol.% of water.

77. (New) The process according to claim 76, wherein hydrogen contains from 2 vol.% to 5 vol.% of water.

78. (New) A cermet including a metallic portion and an electrolyte ceramic material portion, said portions being substantially uniformly interdispersed, said metallic portion having a melting point equal to or lower than 1200°C; said cermet having a metal content higher than 50 wt% and a specific surface area equal to or lower than 5 m^2/g.